

*T*raditional Boatbuilding and Philippine Maritime Culture

COUNTRYWIDE. *In an archipelago with some 36,000 kilometers of coastline and more than 7,000 islands, with mountainous interiors, it is not a wonder that the people should take to water as the most facile mode of travel. This was apparent even during the ancient times when the waterways were the much used highways.*



© Jesus T. Peralta (Butuan, 1976)

The strakes from an ancient boat in northern Mindanao is being lifted from its 320 A.D. interment.

THE ARCHIPELAGIC configuration of our country, comprising more than 7,000 islands and its location on the western edge of the Asian continent facing the vast Pacific Ocean, have shaped our maritime culture. So important is the sea that some of our first social-political organizations are called *barangay*, meaning social groups, which is also a type of boat. The organizational structure of the *barangay*, even though permanently settled on land, is patterned after the strictures imposed on the ship crew. For instance, everyone on board must work together efficiently as one, performing one's task according to the orders of the *nakhoda*, the ship captain.

Maritime knowledge and skills as boat builders, navigators, acumen in the conduct of trade and commerce, apart from personal qualities of bravery and leadership, were indispensable for acquiring high social-political status. Indeed, seafaring groups along the coastal areas like the Tausug of Mindanao, the Sugbu of Cebu, the Tagalogs dominated the course of socio-historical developments compared to the slower development of upland interior dwellers. The seafarers were better organized socially and politically due to their exposure overseas notably to the more advanced civilizations of Asia. Political power derived more from the possession of large fleet of boats, notably fighting vessels (*prahu*, *prao*, or *cora-cora*), warriors, and trade goods. "Raja Buisan, father of Sultan Kudarat, had 20,000 vessels from the village of Suaco in Burney. People from Butuan, Bohol, Basilan, Jolo thought of themselves as one people with the Borneans."

A variety of boats and ships were ubiquitous all over the archipelago and were the indispensable mechanical devices of seafaring people in trade and conquests. Francisco Alcina (1668) and Francisco Combes (1667) gave vivid descriptions of boatbuilding and sea faring capabilities of Filipinos. They built a variety



© Jesus T. Peralta

Reconstructed stilt houses on a man-made pond in a fairground with authentic Sama buggos on the foreground.

of water craft from rafts, to dugouts (*baloto*), to large vessels with double outriggers called *parao*, *prahu*, or *balanghay*. Combes admired the way the Orang Lutao (literally, people who float) built their boats that were designed for speed, maneuverability even in reefs and shoals, and mangrove swamps. They were streamlined and lightweight that they could be carried off on land. These boats sail "like birds while ours are like lead. The boats had wooden planks set horizontally on succeeding tiers upon a long keel forming the hull. All the planks and keel were joined together with pegs, but were lashed together inside the hull. Above the hull was a platform for the quarters of the crew and roofed by awning made of palm. On each side were two quarter rudders and outriggers."

It was not unusual to encounter hundreds of boats of all types and sizes in the different harbors of the Philippine archipelago all the



Like water-walking insects, these large fishing crafts are called basnig.

© Renato S. Rastrollo / NCCA - ICH (Quezon, Palawan, 2011)

way to other ports of Southeast Asia. Pigafetta (1521-1522) witnessed fleets from Mindanao anchored in the Ternate harbor when the Spaniards met King of Gialolo. Colin has this to say about the maritime orientation of early Filipinos. "They are really a maritime people for they are great fishers using net, line and corral. The people who live inland are excellent farmers and hunters." So important was the sea to their lives that in death many preferred to be buried in boat-shaped coffins set on high cliffs overlooking the sea. The remains of some chiefs were placed in a boat then set out to the sea as if going on an ocean journey.

Types of boats and ships may be classified according to functions such as *banca* or *vinta* meaning any watercraft in Luzon and the Visayas. There are houseboats usually 5-6 meters long by 1.5 meters wide with roofs like the *lepa-lepa* of the Bajau-Sama in Sulu and Tawi-Tawi. Meanwhile, fishing boats are like the *armadahan* in Laguna de Bay, or the sailboats with double outriggers, the *pasaplup* in Ilocos which is similar to the Bicol, *seberen*. Passenger, cargo vessels, or trading boats (*curacao* or *biroco*) can be the small sailboat called *sakayan* in Sulu

and Zamboanga. Larger boats are usually called *cora-cora*, *curacao*, sometimes *prahu*, *prao* or *parahu*.

Boats are also classified according to level of technology. The best shipwrights are usually from the Tawi-Tawi archipelago. They are also the most active and innovative boat builders. Crews are usually mixed, mostly composed of Bajau-Sama *tukang* (craftsmen from the Mindanao, Sulu, Tawi-Tawi and Sabah), Tausug and Ilanun. *Tukang* from Bohol and Samar can sometimes be encountered. They are the ones who fabricate the larger ocean-going *prao*, *prahu* or *basing*, most of which are motorized and equipped with navigational gears like compass, radio and Global Positioning System (GPS). Capital for fabricating these large ocean-going vessels called *basnig* were often provided by ethnic Chinese. At the time of field research, the total cost could reach up to 2-3 million pesos. These *basnig* ply the inland seas of Southeast Asia exporting copra, sugar and other agricultural and marine products from the Philippines to ports in Indonesia, Malaysia up to Singapore and the Pacific Islands. On the return trip, these cargo vessels import timber and fuel

A large raft to ferry farm animals and light vehicles across the Bacarra River.



© Cecilia V. Picache (Bacarra, Ilocos Norte, 2012)

oil from Borneo and manufactured goods from other Southeast Asian ports.

The simplest water craft are rafts (floating platforms made of joined bamboo poles used on rivers and on shores) propelled by *punting*, using a long staff. There are also dugouts (small boats shaped from a single log for one or two passengers propelled by paddles), while bancas larger than dugouts are carved out from one large log or built up with wooden planks. Bancas are usually up to 5-10 meters long and used for fishing, passenger and cargo transport. In Mindanao, they are called sakayan.

The main technical features of a balanghay, prahu or prao used as trading vessel can be described as follows. First is the large, long keel preferably shaped from hardwood; its length dictated by the length of the tree trunk. At the time when tall hardwood trees were still abundant, the length of the keel could be as much as 20-25 meters long. Today, due to denudation of forests, the single long keel has been replaced with joined timber to lengthen it. Upon the keel, wooden planks are joined together horizontally in succeeding tiers to form the hull, the height of which is proportional to

the length of the keel. Usually, a 15 to 20-meter long boat would have side walls as high as 3-4 meters. Across the width of the hull, a series of ribs are shaped at regular intervals, with each rib joined by mortise and tenon to the hull floor with knobs called *tembuco* which are drilled with holes through which rattan lashing is used to reinforce the ribs to the side planks.

The hull serves as the cargo hold. On top of the hull, flooring of wooden planks is made upon which quarters covered with palm roofing for the ship crew are provided. On either side of the boat are outriggers upon which rows of rowers could sit while they paddle. As for rigging, large vessels would have tripod masts with main sail, foresail (square or oblong) and jib usually made of cotton canvas (in the olden days, sails could be made of palm matting). Larger vessels would have two to three tripod masts with their corresponding sails. Boats are equipped with rudders fore and aft, for easy maneuvering. On war boats, there are separate platforms for warriors and for installing canons or *lantakas*.

Aurora Roxas-Lim